

Pecking Order of Chickens

Calls concerning pecking and cannibalism are some of the most common problems poultry veterinarians and specialists receive from small flock owners.

There may be many reasons for flock aggression, but when picking is accompanied by severe feather eating, the first thing that comes to mind is a protein deficiency of the diet or a deficiency of specific amino acids. Feathers are especially rich in the sulfur-containing amino acids such as methionine and cysteine. Methionine is one essential amino acid that must be supplemented in poultry diets. Methionine levels can particularly difficult to achieve in commercial “organic diets”, as the use of synthetic methionine is being phased out of organic rations. Free-ranging poultry can often supplement deficient diets with foods found in the pasture. But in the middle of winter, the typical methionine and protein-rich sources (such as grubs, earthworms and insects) are difficult to come by. Chickens without a good feather cover are susceptible to temperature stress and skin diseases. In order to regrow new feathers, they will need increased protein and a good balanced ration.

The following suggestions are recommended to deal with feather eating and aggression:

1. Consider changing the ration to a different laying hen diet. Game bird or turkey layer rations (those given to breeder pheasants, quail or turkeys) typically have a higher protein levels. Use this diet until the feathers have regrown.
2. Do not feed additional carbohydrate sources such as corn or sunflower seeds or bread treats as this dilutes the fully-fortified ration. These simply raise the calories consumed by the birds, make them obese (the number two dietary health problem in small flocks) and worsen any protein deficiency that might be present.
3. If a new ration is not available, there are other ways to increase the methionine and protein levels consumed. Feeding back to the birds a small amount of crumbled, hard-cooked eggs is actually a very good source of complete protein. Do not over-do this and try for short periods of time to see if this helps reduce the picking. Excess protein can cause the birds to drink more and makes their droppings loose. Raw eggs should never be given as this might make the birds sick or lead to eating freshly laid eggs (a problematic and difficult to eliminate vice). Providing some whole oats (no more than 5 % of the entire ration, given at the end of day) increases the protein and is also a very good source of fiber which may also help curb picking. Giving supplements at the end of the day forces the birds to consume their complete ration as the main food (with the necessary vitamins and minerals).
4. Mealworms and earthworms are also excellent sources of methionine and protein, although a bit expensive.
5. Other sources of methionine would include broccoli, spinach, soy and dairy products.

6. Give small amounts of these supplements at the end of the day, relying primarily on the ration to supply most of their needs.
7. Have oyster shell grit available for the hens free choice.
8. Be sure all the birds can reach the food and water source.
9. Introduce any new birds carefully into a flock. New birds upset the established pecking order and may be injured, especially if they are younger or smaller or more timid.

Other issues to be considered when there is cannibalism in a flock:

1. Be sure the birds have enough room and nest boxes. One nest box per four hens is recommended. Nest boxes should ideally be placed in a dark corner of the coop. 2 sq. ft. per bird may not be enough, esp. in the cold weather when the birds do not want to go outside. Be sure the bedding is dry and remove wet spots immediately. There should be no strong ammonia smell inside the coop. The bird's feet should be relatively clean if the house manure and moisture are under control. Some fresh air is necessary, regardless of weather.
2. Use a red lamp as a light and heat source inside the coop and keep lighting dim. This has a calming effect on the birds.
3. Check birds over for mites and lice. Fowl mites look like small black spider-lice moving specks and are especially common under the tail if present. Lice are light brown insects with 3 distinct body segments. Red mites are light tan to red colored mites. They typically come out at night, so examine your birds after dark with a flash light to check for these. A magnifying glass can be used to see them better, but the best indicator is observing for specks that are "moving".
4. Water soluble vitamins and electrolytes might be helpful to add to their drinking water to help feather re-growth. However, a fresh source is needed daily. It is also important to regularly clean the drinkers as these supplements may allow bacterial and yeast slime build-up if not cleaned properly. Under normal conditions, the feed should be supplying all their vitamin and mineral needs.
5. All feeds should be stored in a sealed, light-tight container in a cool and dry area. No more than a month's supply should be in storage, esp. in very hot weather.
6. Peepers or nose-bits are a last resort. Trimming the tip of the top beak with dog toe nail clipper or filing down with a dremel-like tool to remove the sharp tip helps curb the amount of damage they can inflict on each other. These certainly reduce picking, but do not address the inciting cause which still remains.

7. If having fertile eggs are not important, you might consider going from several roosters to one or none! Mating can be hard on the back feathers, contributing to bare patches on the hens. Otherwise, one rooster to 11 hens is typically good for eggs used for hatching purposes.

8. Consider a docile dual purpose layer. Leghorns are excellent egg layers but are more high strung. Brown leghorns are less nervous than white leghorns, but differences in temperament exist even among the brown layers strains.

9. Injured and/or bloody birds must be removed immediately and housed by themselves to allow to heal. Birds with wet areas under the tail must be picked up, cleaned with warm water and checked for damage to their cloaca from prolapsed and traumatized tissues. These animals will often require further veterinary care.

In summary, picking may be due to a variety of factors including poor nutrition, over-crowding, competition for nesting space, poor air quality, nervous breeds, too many roosters, introduction of new birds into a flock, skin parasites, and high light intensity. Determination of the cause is not always easy, but essential to stop the problem if observed and prevent it from reoccurring in the first place.

For further information, here are some good websites.

http://pubs.ext.vt.edu/2902/2902-1095/2902-1095_pdf.pdf

<http://www.ksre.ksu.edu/bookstore/pubs/MF2336.pdf>

<http://extension.psu.edu/animals/poultry/topics>

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